

**Little Cedar Creek (0744)**  
**Use Attainability Analysis**



**Boone County Regional Sewer District**  
**1314 North 7<sup>th</sup> Street**  
**Columbia, MO 65201-3902**

**Prepared by**  
**Barr Engineering Company**  
**July 2005**

***Little Cedar Creek (0744)***

***Use Attainability Analysis***

***Boone County Regional Sewer District***

***1314 North 7<sup>th</sup> Street***

***Columbia, MO 65201-3902***

***July 2005***



Barr Engineering Company  
3236 Emerald Lane  
Jefferson City, MO 65109  
Phone: (573) 636-5331  
Fax: (573) 636-5323

RECEIVED

**Field Data Sheets for Recreational Use Stream Surveys**

JUL 13 2005

**Data Sheet A - Water Body Identification**

WATER PROTECTION PROGRAM

Water Body Name (from USGS 7.5' quad): Little Cedar Creek
8-digit HUC: 10300102
Missouri WBID #: 0744
County: Boone
Upstream Legal Description: North Line Section 5, Township 48 North, Range 11 West
Downstream Legal Description: Mouth (in North 1/2 Section 20, T48N, R11W)
Upstream Coordinates: UTM (Z15N) 571658E; 4314632N
Downstream Coordinates: UTM (Z15N) 571052E; 4308909N
Discharger Facility Name(s): Boone County Regional Sewer District, Meadow Village, Permit # MO0098442 Boone County Regional Sewer District, Lee Heights, Permit # MO0102113 Lake Chateau Subdivision, Permit # MO0108332 France Country Place, Permit # MO0114332
Discharger Permit Number(s): See Above.
Number of Sites Evaluated: 6
Name of Surveyor and Telephone Number: Alan Fandrey (573-638-5013)
Organization: Barr Engineering Company
Position: Civil Engineer

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Alan Fandrey Date: June 29, 2005

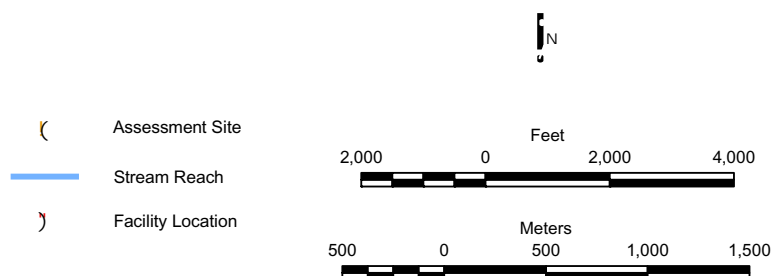
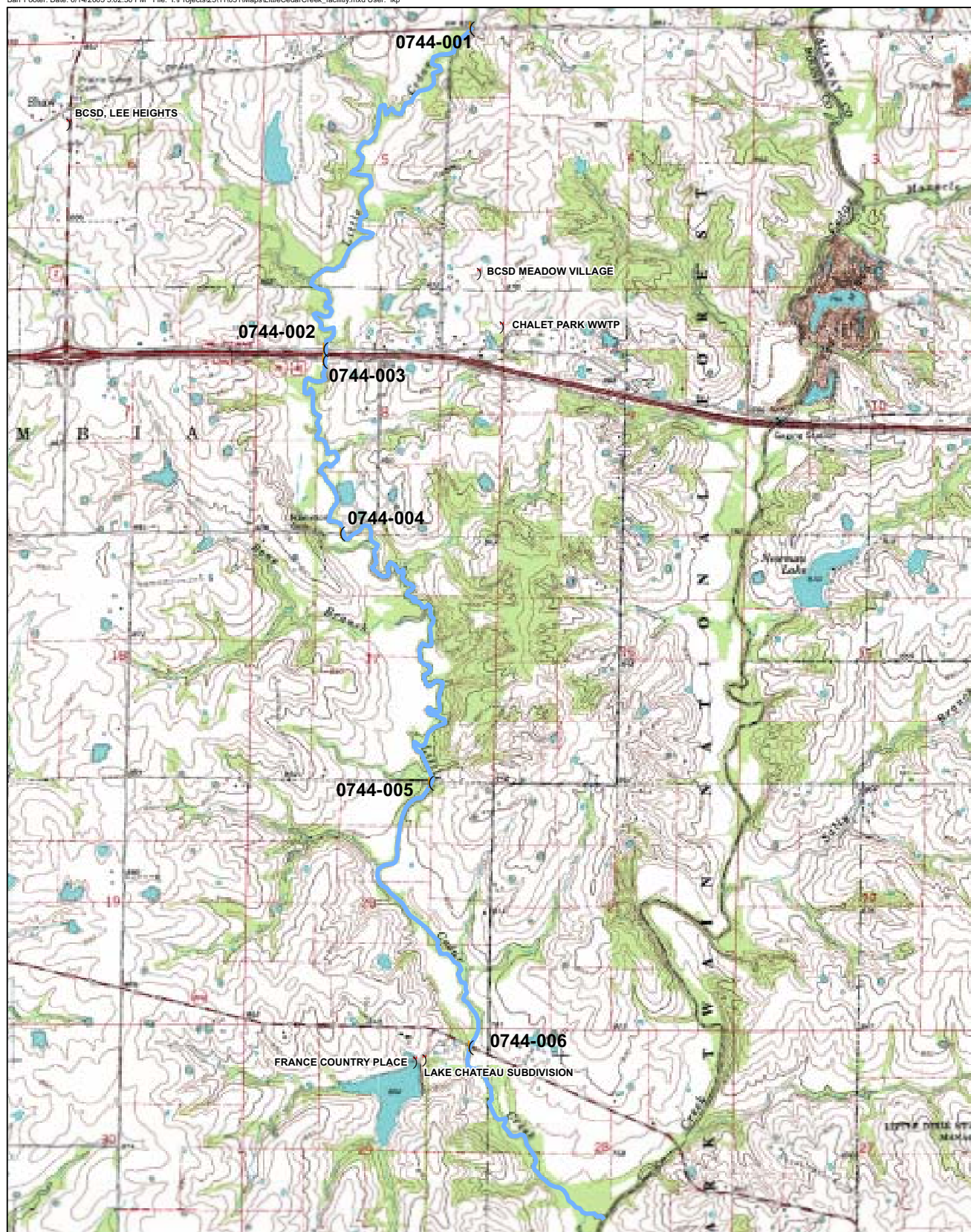


Figure 1

LITTLE CEDAR CREEK REACH

## **Field Data Sheets for Recreational Use Stream Surveys**

### **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Missouri WBID #: 0744-001	Site Location Description: Little Cedar Creek at road crossing North Line Section 5, T48N, R11W; BID 201 – Boone County	
Site GPS Coordinates: 571658E; 4314632N		
Date & Time: 5/28/05	Facility Name: See Report Table 2	
Personnel: Tim J. Fandrey / Alan J. Fandrey	Permit Number: See Report Table 2	
Current Weather Conditions: Clear - 70s	Weather Conditions for Past 7 days: Last rain with runoff May 22	
Photo Ids: Upstream: 0744-001US	Downstream: 0744-001DS	Other: –

#### **Uses Observed\*:**

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.) N/A				

#### **Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

#### **Evidence of Human Use\*:**

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet B - Site Characterization

Page Two - WBID #0744-001:

### Stream Morphology:

#### Upstream View Physical Dimensions:

<input checked="" type="checkbox"/> Riffle	Width (ft): 3	Length (ft): 10	Avg. Depth (ft): 0.1	Max. Depth (ft): 0.2
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): 100	Length (ft): 300	Avg. Depth (ft): 0.3	Max. Depth (ft): 0.5
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): less than 1.0	

#### Downstream View Physical Dimensions:

<input checked="" type="checkbox"/> Riffle	Width (ft): 1.0	Length (ft): 20	Avg. Depth (ft): 0.1	Max. Depth (ft): 0.2
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): 5-30	Length (ft): 100	Avg. Depth (ft): 0.5	Max. Depth (ft): 1.0
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): less than 1.0	

Substrate\*: (These values should add up to 100%.)

% Cobble	10% Gravel	% Sand	% Silt	90% Mud/Clay	% Bedrock
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Aquatic Vegetation\*: (note amount of vegetation or algal growth at the assessment site)

A little grass
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Water Characteristics\*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: brown
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Other: debris
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Alan J. Faulk Date: May 28, 2005  
Organization: Barr Engineering Company Position: Engineer





Photo ID 0744-001US: Upstream (Little Cedar Creek)



Photo ID 0744-001DS: Downstream (Little Cedar Creek)

## **Field Data Sheets for Recreational Use Stream Surveys**

### **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Missouri WBID #: 0744-002	Site Location Description: Little Cedar Creek at I-70 North Outer Road Crossing in North ½ Section 8, T48N, R11W; BID 202 – Boone County	
Site GPS Coordinates: 570687E; 4312543N		
Date & Time: 5/28/2005 - 1:45 p.m.	Facility Name:	
Personnel: Tim J. Fandrey / Alan J. Fandrey	Permit Number:	
Current Weather Conditions: Clear - 70s	Weather Conditions for Past 7 days: Last rain with runoff May 22	
Photo Ids: Upstream: 0744-002US	Downstream: 0744-002DS	Other: –

#### **Uses Observed\*:**

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.) N/A				

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: power lines	

#### **Evidence of Human Use\*:**

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet B - Site Characterization

Page Two - WBID #0744-002:

### Stream Morphology:

#### Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): 12-20	Length (ft): 100	Avg. Depth (ft): 0.6	Max. Depth (ft): 1.2
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): less than 1.0	

#### Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): 10	Length (ft): 20	Avg. Depth (ft): 0.5	Max. Depth (ft): 1.0
<input checked="" type="checkbox"/> Flow	Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): less than 1.0	

#### Substrate\*: (These values should add up to 100%.)

% Cobble	% Gravel	% Sand	% Silt	100% Mud/Clay	% Bedrock
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#### Aquatic Vegetation\*: (note amount of vegetation or algal growth at the assessment site)

None.
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#### Water Characteristics\*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: brown
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Other: riprap
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input checked="" type="checkbox"/> Foam	<input type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Alan J. Pavey Date: May 28, 2005  
Organization: Barr Engineering Company Position: Engineer



Photo ID 0744-002US: Upstream (Little Cedar Creek)



Photo ID 0744-002DS: Downstream (Little Cedar Creek)

## **Field Data Sheets for Recreational Use Stream Surveys**

### **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Missouri WBID #: 0744-003	Site Location Description: Little Cedar Creek at South I-70 Outer Road Crossing in North ½ Section 8, T48N, R11W; BID 203 – Boone County	
Site GPS Coordinates: 570699E; 4312474N		
Date & Time: 5/28/05 - 1:50 p.m.	Facility Name: See Report Table 2	
Personnel: Tim J. Fandrey / Alan J. Fandrey	Permit Number: See Report Table 2	
Current Weather Conditions: Clear 70s	Weather Conditions for Past 7 days: Last rain with runoff on May 22	
Photo Ids: Upstream: 0744-003US	Downstream: 0744-003DS	Other: –

#### **Uses Observed\*:**

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.) N/A				

#### **Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: power lines	

#### **Evidence of Human Use\*:**

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet B - Site Characterization

Page Two - WBID #0744-003:

### Stream Morphology:

#### Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): 14	Length (ft): 30	Avg. Depth (ft): 0.5	Max. Depth (ft): 1.0
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): less than 1.0	

#### Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Run	Width (ft): 10-30	Length (ft): 250	Avg. Depth (ft): 0.3	Max. Depth (ft): 0.5
<input type="checkbox"/> Pool	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): same as above	

**Substrate\*:** (These values should add up to 100%.)

10% Cobble	% Gravel	% Sand	% Silt	90% Mud/Clay	% Bedrock
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**Aquatic Vegetation\*:** (note amount of vegetation or algal growth at the assessment site)

None
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**Water Characteristics\*:** (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

**Comments:** Please attach additional comments (including information from interviews) to this form.

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Adam Paul Date: May 28, 2005  
Organization: Barr Engineering Company Position: Engineer



Photo ID 0744-003US: Upstream (Little Cedar Creek)



Photo ID 0744-003DS: Downstream (Little Cedar Creek)

## **Field Data Sheets for Recreational Use Stream Surveys**

### **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Missouri WBID #: 0744-004	Site Location Description: Little Cedar Creek at Road Crossing on North Line Section 17, T48N, R11W; BID 204 – Boone County	
Site GPS Coordinates: 570770E; 4311311N		
Date & Time: 05/28/05 - 2:10 p.m.	Facility Name: See Report Table 2	
Personnel: Tim J. Fandrey /Alan J. Fandrey	Permit Number: See Report Table 2	
Current Weather Conditions: Clear - 70s	Weather Conditions for Past 7 days: Last rain with runoff on May 22	
Photo Ids: Upstream: 0744-004US	Downstream: 0744-004DS	Other: –

#### **Uses Observed\*:**

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.) N/A				

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input checked="" type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input type="checkbox"/> Other:	

#### **Evidence of Human Use\*:**

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet B - Site Characterization

Page Two - WBID #0744-004:

### Stream Morphology:

#### Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): 5-20	Length (ft): 50	Avg. Depth (ft): 0.6	Max. Depth (ft): 1.0
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): less than 1.0	

#### Downstream View Physical Dimensions:

<input checked="" type="checkbox"/> Riffle	Width (ft): 3.0	Length (ft): 2.0	Avg. Depth (ft): 0.1	Max. Depth (ft): 0.2
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): 10-30	Length (ft):	Avg. Depth (ft): 0.5	Max. Depth (ft): 0.8
<input checked="" type="checkbox"/> Flow	Present?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): less than 1.0	

Substrate\*: (These values should add up to 100%.)

% Cobble	% Gravel	% Sand	% Silt	100% Mud/Clay	% Bedrock
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Aquatic Vegetation\*: (note amount of vegetation or algal growth at the assessment site)

None

Water Characteristics\*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input checked="" type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input checked="" type="checkbox"/> Other: debris, beaver dam
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Alan R. Ruff Date: May 28, 2005

Organization: Barr Engineering Company Position: Engineer



Photo ID 00744-004US: Upstream (Little Cedar Creek)



Photo ID 0744-004DS: Downstream (Little Cedar Creek)

## **Field Data Sheets for Recreational Use Stream Surveys**

### **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Missouri WBID #: 0744-005		Site Location Description: Little Cedar Creek at abandoned bridge on South Line Section 17, T48N, R11W; BID 205 – Boone County
Site GPS Coordinates: 571399E; 4309479N		
Date & Time: 05/28/05 - 2:30 p.m.		Facility Name: See Report Table 2
Personnel: Tim J. Fandrey /Alan J. Fandrey		Permit Number: See Report Table 2
Current Weather Conditions: Clear - 70s		Weather Conditions for Past 7 days: Last rain with runoff on May 22
Photo Ids: Upstream: 0744-005US	Downstream: 0744-005DS	Other: –

#### **Uses Observed\*:**

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.) N/A				

#### **Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: Agriculture	

#### **Evidence of Human Use\*:**

<input type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input checked="" type="checkbox"/> Other: Abandoned bridge				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

\*Some of this information is not intended to directly influence a decision on any one particular recreational use analysis but may point to conditions that need further analysis or that effect another use.

# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet B - Site Characterization

Page Two - WBID #0744-005:

### Stream Morphology:

#### Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): 40-50	Length (ft): 200	Avg. Depth (ft): 2.0	Max. Depth (ft): 3.0
<input type="checkbox"/> Flow	Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): less than 1.0		

#### Downstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): 40-50	Length (ft): 200	Avg. Depth (ft): 2.0	Max. Depth (ft): 3.0
<input checked="" type="checkbox"/> Flow	Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): less than 1.0		

#### Substrate\*: (These values should add up to 100%.)

% Cobble	% Gravel	% Sand	% Silt	100% Mud/Clay	% Bedrock
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#### Aquatic Vegetation\*: (note amount of vegetation or algal growth at the assessment site)

None
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#### Water Characteristics\*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: brown
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Other: debris
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach additional comments (including information from interviews) to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Alan Kauf Date: May 28, 2005

Organization: Barr Engineering Company Position: Engineer





Photo ID 0744-005US: Upstream (Little Cedar Creek)



Photo ID 0744-005DS: Downstream (Little Cedar Creek)

## **Field Data Sheets for Recreational Use Stream Surveys**

### **Data Sheet B - Site Characterization**

(A separate data sheet must be completed for each site)

Missouri WBID #: 0744-006	Site Location Description: Little Cedar Creek at Highway WW bridge in North ½ Section 29, T48N, R11W; BID 206 – Boone County	
Site GPS Coordinates: 571655E; 4307744N		
Date & Time: 06/26/05 – 2:30 p.m.	Facility Name: See Report Table 2	
Personnel: Alan J. Fandrey	Permit Number: See Report Table 2	
Current Weather Conditions: Clear - 90s	Weather Conditions for Past 7 days: Last rain with runoff on June 13	
Photo Ids: Upstream: 0744-006US	Downstream: 0744-006DS	Other: –

#### **Uses Observed\*:**

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:
Describe: (include number of individuals recreating, frequency of use, photo-documentation of evidence of recreational uses, etc.) N/A				

#### **Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input checked="" type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> Other: Agriculture	

#### **Evidence of Human Use\*:**

<input checked="" type="checkbox"/> Roads	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Rope swings	<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle
<input type="checkbox"/> Other:				

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest. (Include photographs)

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# Field Data Sheets for Recreational Use Stream Surveys

## Data Sheet B - Site Characterization

Page Two - WBID #0744-006:

### Stream Morphology:

#### Upstream View Physical Dimensions:

<input type="checkbox"/> Riffle	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): 5-25	Length (ft): 30	Avg. Depth (ft): 1.5	Max. Depth (ft): 2.7
<input type="checkbox"/> Flow	Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): < 1		

#### Downstream View Physical Dimensions:

<input checked="" type="checkbox"/> Riffle	Width (ft): 5	Length (ft): 8	Avg. Depth (ft): < 0.1	Max. Depth (ft): 0.1
<input type="checkbox"/> Run	Width (ft):	Length (ft):	Avg. Depth (ft):	Max. Depth (ft):
<input checked="" type="checkbox"/> Pool	Width (ft): 10-20	Length (ft): 35	Avg. Depth (ft): 1.0	Max. Depth (ft): 1.3
<input checked="" type="checkbox"/> Flow	Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Estimated (ft <sup>3</sup> /sec): same as above		

#### Substrate\*: (These values should add up to 100%)

20% Cobble	10% Gravel	10% Sand	% Silt	60% Mud/Clay	% Bedrock
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#### Aquatic Vegetation\*: (note amount of vegetation or algal growth at the assessment site)

None

#### Water Characteristics\*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input checked="" type="checkbox"/> Other: brown
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

**Comments:** Please attach additional comments (including information from interviews) to this form.

Upstream pool depth due at least in part to eddies caused by stream diversion for road crossing.

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I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: John R. Roney Date: June 27, 2005

Organization: Barr Engineering Company Position: Engineer



Photo ID 0744-006US: Upstream (Little Cedar Creek)



Photo ID 0744-006DS: Downstream (Little Cedar Creek)